



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**929057**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0106246</b>	GFL0106236	GFL0066982
Sample Date		Client Info		<b>04 Jun 2024</b>	02 Apr 2024	06 Dec 2023
Machine Age	hrs	Client Info		<b>13112</b>	12672	11792
Oil Age	hrs	Client Info		<b>0</b>	0	456
Filter Age	hrs	Client Info		<b>0</b>	0	456
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>1</b>	5	4
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

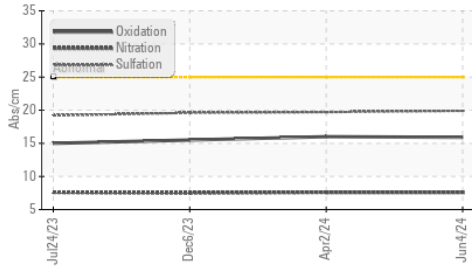
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	7.6	7.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	19.7	19.6
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

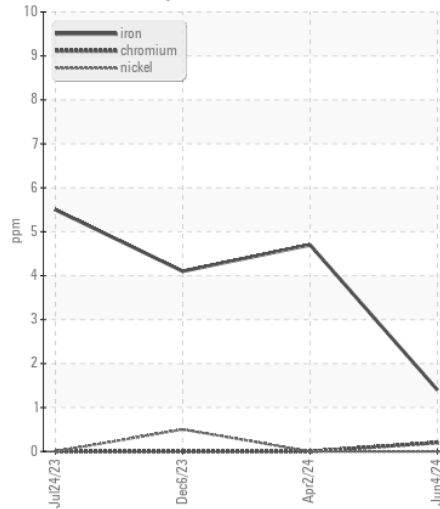
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	2
Boron	ppm	ASTM D5185m	0	<b>9</b>	1	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	60	58
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>936</b>	921	910
Calcium	ppm	ASTM D5185m	1070	<b>1104</b>	1043	1024
Phosphorus	ppm	ASTM D5185m	1150	<b>992</b>	987	1041
Zinc	ppm	ASTM D5185m	1270	<b>1286</b>	1208	1241
Sulfur	ppm	ASTM D5185m	2060	<b>3120</b>	3471	3056
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	16.0	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	8.4	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.5	13.3

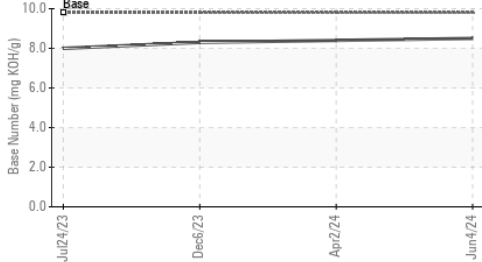
FT-IR (Direct Trend)



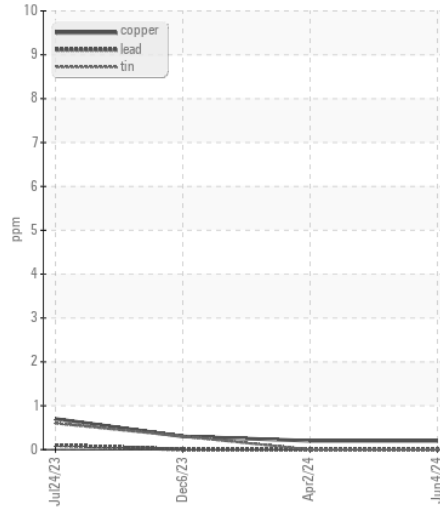
Ferrous Alloys



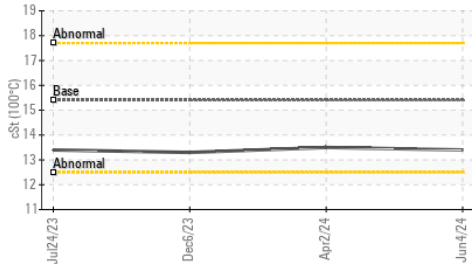
Base Number



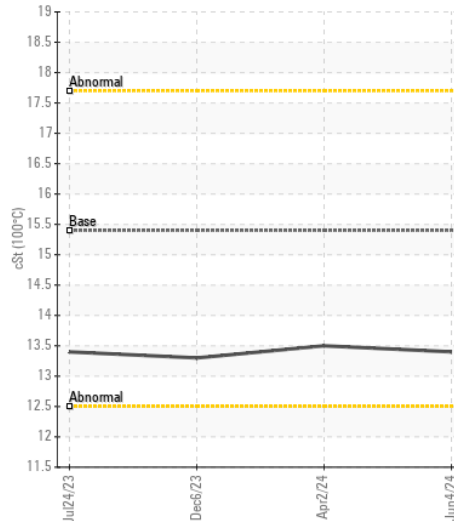
Non-ferrous Metals



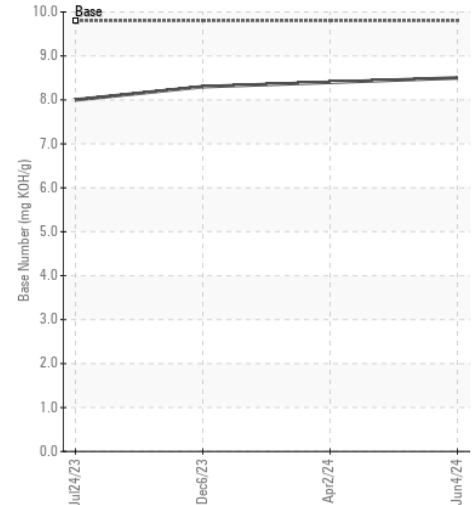
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0106246  
 Lab Number : 06220911  
 Unique Number : 11099108  
 Test Package : FLEET

Received : 26 Jun 2024  
 Tested : 27 Jun 2024  
 Diagnosed : 27 Jun 2024 - Wes Davis

GFL Environmental - 916 - Greenbay HC  
 1799 County Trunk PP  
 DePere, WI  
 US 54115  
 Contact: Travis Runge  
 travis.runge@gflenv.com  
 T: (920)351-2341  
 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)